Fig. 1

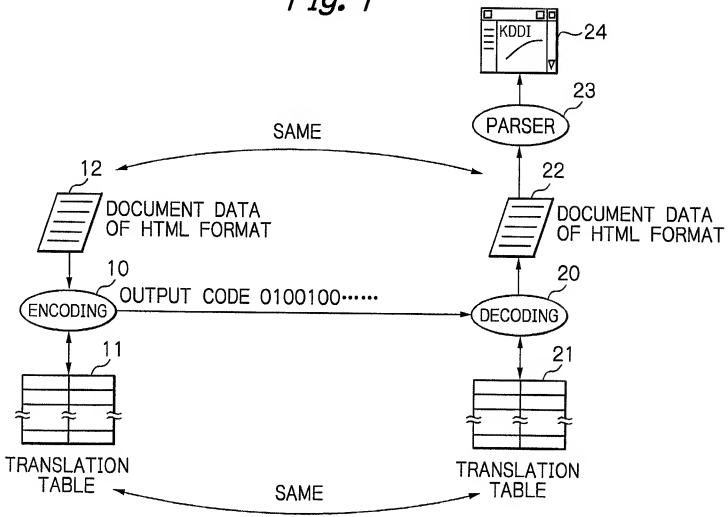


Fig. 2

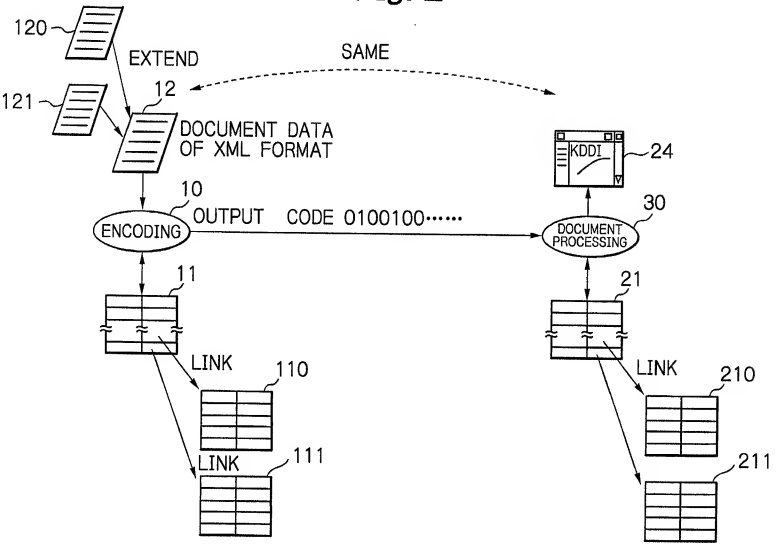


Fig. 3

[SAMPLE OF DOCUMENT DATA]

```
<svg width="500" height="800">                          [1]
 <rect x="0" y="0" width="10" height="100" />           [2]
 <text x="480" y="300">文字列1=</text>                    [3]
</svg>                                                  [4]
```

Fig. 4

[SAMPLE OF CODE DATA]

00 000	NAME "00"+START OF ELEMENT"svg" "000" [1]
00 10	NAME "00"+ATTRIBUTE NAME width "10"
01 0111110100	NUMERIC "01"+ATTRIBUTE VALUE 500
00 11	NAME "0"+ATTRIBUTE NAME height "11"
01 1100100000	NUMERIC "01"+ATTRIBUTE VALUE 500
00 001	NAME "00"+START OF ELEMENT"rect" [2]
00 100	NAME "00"+ATTRIBUTE NAME x "100"
01 0000000000	NUMERIC "01"+ATTRIBUTE VALUE 0
00 101	NAME "00"+ATTRIBUTE NAME y "101"
01 0000000000	NUMERIC "01"+ATTRIBUTE VALUE 0
00 110	NAME "00"+ATTRIBUTE NAME width "110"
01 0000001010	NUMERIC "01"+ATTRIBUTE VALUE 10
00 111	NAME "00"+ATTRIBUTE NAME height "111"
01 0001100100	NUMERIC "01"+ATTRIBUTE VALUE 100
00 011	NAME "00"+END OF ELEMENT"rect" "011"
00 010	NAME "00"+START OF ELEMENT"text" "010" [3]
00 10	NAME "00"+ATTRIBUTE NAME x "10"
01 0111100000	NUMERIC "01"+ATTRIBUTE VALUE 480
00 11	NAME "00"+ATTRIBUTE NAME y "11"
01 0100101100	NUMERIC "01"+ATTRIBUTE VALUE 300
10 00000100	CHARACTER STRING "10"+NUMBER OF CHARACTER 4
1001010110110110	CHARACTER 「文」
1000111010011010	CHARACTER 「字」
1001011111110001	CHARACTER 「列」
1000001001010000	CHARACTER 「1」
00 011	NAME "00"+END OF ELEMENT"text""011"
00 011	NAME "00"+END OF ELEMENT"svg" "011" [4]

Fig. 5a

[SAMPLE OF TRANSLATION TABLE]

```
<?xml version="1.0"?>
<xeus version="1.0">
<head>                                  ((1) START OF HEADER PART)
 <prefix bit="2">                       ((2) CODE LENGTH)
  <name_prefix code="00" />             ((3) CODE THAT MEANS NAME)
  <number_prefix code="01" />           ((4) CODE THAT MEANS NAMERIC)
  <char_prefix code="10" />             ((5) CODE THAT MEANS CHARACTER
                                             STRING)
 </prefix>
 <root name="svg" bit="3" code="000" />
                                        ((6) 3 BITS "000" ARE ASSIGNED TO
                                             START OF ELEMENT "svg")
 <end name="/svg" bit="3" code="011" />
                                        ((7) 3 BITS "011" ARE ASSIGNED TO
                                             END OF ELEMENT "svg")
</head>
```

Fig. 5b

```
<body>                                        ((8) START OF BODY PART)
<element name="svg">          ((9) ELEMENT NAME "svg" IS DEFINED)
 <attlist bit="2">            ((10) 2BITS ARE ASSIGNED AS ATTRIBUTE
                                        NAME)
  <attr name="width" code="10">
           ((11) "10" IS ASSIGNED TO ATTRIBUTE NAME "width"
                BASED ON ELEMENT NAME "svg")
   <value>
    <number bit="10" data="UI" qt="1" />
           ((12) ATTRIBUTE VALUE OF ATTRIBUTE NAME "width" IS
                REPRESENTED BY 10 BITS OF UNSIGNED INTEGER)
   </value>
  </attr>
  <attr name="height" code="11">
           ((13) "11" IS ASSIGNED TO ATTRIBUTE NAME "height"
                BASED ON ELEMENT NAME "svg")
   </value>
    <number bit="10" data="UI" qt="1" />
           ((14) ATTRIBUTE VALUE OF ATTRIBUTE NAME "height" IS
                REPRESENTED BY 10 BITS OF UNSIGNED INTEGER)
   </value>
  </attr>
  </attlist>
  <children bit="3">   ((15) CHILD ELEMENT IS DEFINED BY 3 BITS)
    <child_element name="rect" code="001" end-code="011" />
          ((16) ELEMENT NAME "rect" THAT IS A CHILD OF ELEMENT
                "svg" IS DEFINES)
          ((17) "001" IS ASSIGNED TO START OF ELEMENT "rect"
                "011" IS ASSIGNED TO END OF ELEMENT "rect")
    <child_element name="text" code="010" end-code="011" />
          ((18) ELEMENT NAME "text" THAT IS A CHILD OF ELEMENT
                "svg" IS DEFINES)
          ((19) "010" IS ASSIGNED TO START OF ELEMENT "text"
                "011" IS ASSIGNED TO END OF ELEMENT "text")
  </children>
 </element>
```

Fig. 5c

```
<element name="rect">        ((20) ELEMENT NAME "rect" IS DEFINED)
 <attlist bit="3">           ((21) 3BITS ARE ASSIGNED AS ATTRIBUTE
                                  NAME)
  <attr name="x" code="100">
                        ((22) "100" IS ASSIGNED TO ATTRIBUTE NAME)
   <value>
    <number bit="10" data="I" qt="implied" />
                  ((23) ATTRIBUTE VALUE OF ATTRIBUTE NAME "x" IS
                        REPRESENTED BY 10 BITS OF SIGNED INTEGER)
   <value>
  </attr>
  <attr name="y" code="101">
                     ((24) "101" IS ASSIGNED TO ATTRIBUTE NAME "y")
   <value>
    <number bit="10" data="I" qt="implied" />
                  ((25) ATTRIBUTE VALUE OF ATTRIBUTE NAME "y" IS
                        REPRESENTED BY 10 BITS OF SIGNED INTEGER)
   </value>
  </attr>
  <attr name="width" code="110">
                  ((26) "110" IS ASSIGNED TO ATTRIBUTE NAME "width")
   </value>
    <number bit="10" data="UI" qt="implied" />
                  ((27) ATTRIBUTE VALUE OF ATTRIBUTE NAME "width"
                    IS REPRESENTED BY 10 BITS OF UNSIGNED INTEGER)
   </value>
  </attr>
  <attr name="height" code="111">
                  ((28) "111" IS ASSIGNED TO ATTRIBUTE NAME "height")
   <value>
    <number bit="10" data="UI" qt="implied" />
                 ((29) ATTRIBUTE VALUE OF ATTRIBUTE NAME "height"
                    IS REPRESENTED BY 10 BITS OF UNSIGNED INTEGER)
   </value>
  </attr>
 </attlist>
</element>
```

Fig. 5d

```
<element name="text">        ((30) ELEMENT NAME "text" IS DEFINED)
 <attlist bit="2">           ((31) 2 BITS ARE ASSIGNED TO ATTRIBUTE
                                 NAME)
  <attr name="x" code="10">
                  ((32) "10" IS ASSIGNED TO ATTRIBUTE NAME "x")
   <value>
    <number bit="10" data="I" qt="implied" />
                ((33) ATTRIBUTE VALUE OF ATTRIBUTE NAME "x" IS
                      REPRESENTED BY 10 BITS OF SIGNED INTEGER)
   </value>
  </attr>
  <attr name="y" code="11">
                  ((34) "11" IS ASSIGNED TO ATTRIBUTE NAME "x")
   </value>
    <number bit="10" data="I" qt="implied" />
                ((35) ATTRIBUTE VALUE OF ATTRIBUTE NAME "y" IS
                      REPRESENTED BY 10 BITS OF SIGNED INTEGER)
   </value>
  </attr>
 </attlist>
 <element_value>
              ((36) ELEMENT VALUE OF ELEMENT "text" IS DEFINED)
  <char_length="implied" encoding="Shift_JIS" qt="I" />
                ((37) IT IS DEFINED THATS VALUE IS SHIFT_JIS
                      FORMAT)
 </element_value>
</element>
</body>
</xeus>
```

Fig. 6

```
DOCUMENT A
<a1>
  <a2>aaa</a2>
 </a1>
DOCUMENT B
 <b1>bbb</b1>

EXTENDING OF DOCUMENT A AND DOCUMENT B
<a:a1 xmlns:a="#a" xmlns:b="#b" >
 <b:b1>bbb</b:b1>
 <a:a2>aaa</a:a2>
</a:a1>

TRANSLATION TABLE
<?xml version="1.0"?>
<xeus xmlns="xeus-for-a&b">
<head>
 <namespaces>
  <namespace bit="1" name="a1" prefix="a" code="0"
                                          xlink:href="a.xeus"/>
  <namespace bit="1" name="a1" prefix="b" code="1"
                                          xlink:href="b.xeus"/>
 </namespaces>
</head>
</xeus>
```

Fig. 7

[SAMPLE OF CODE DATA]

00 0000000100010010 000	NAME "00"+OCCUPATION 274bits + START OF ELEMENT "svg" "000" [1]
00 10	NAME "00"+ATTRIBUTE NAME width "10"
01 0111110100	NUMERIC "01"+ATTRIBUTE VALUE 500
00 11	NAME "00"+ATTRIBUTE NAME height "11"
01 1100100000	NUMERIC "01"+ATTRIBUTE VALUE 500
00 0000000001001100 001	NAME "00"+OCCUPATION 76bits + START OF ELEMENT "rect" [2]
00 100	NAME "00"+ATTRIBUTE NAME x "100"
01 0000000000	NUMERIC "01"+ATTRIBUTE VALUE 0
00 101	NAME "00"+ATTRIBUTE NAME y "101"
01 0000000000	NUMERIC "01"+ATTRIBUTE VALUE 0
00 110	NAME "00"+ATTRIBUTE NAME width "110"
01 0000001010	NUMERIC "01"+ATTRIBUTE VALUE 10
00 111	NAME "01"+ATTRIBUTE NAME height "111"
01 0001100100	NUMERIC "01"+ATTRIBUTE VALUE 100
00 011	NAME "00"+END OF ELEMENT"rect" "011"
00 0000000001110010 010	NAME "00"+OCCUPATION 14 bits + START OF ELEMENT "text" "010" [3]
00 10	NAME "00"+ATTRIBUTE NAME x "10"
01 0111100000	NUMERIC "01"+ATTRIBUTE VALUE 480
00 11	NAME "00"+ATTRIBUTE NAME y "11"
01 0100101100	NUMERIC "01"+ATTRIBUTE VALUE 300
10 00000100	CHARACTER STRING "10"+NUMBER OF CHARACTER 4
1001010110110110	CHARACTER 「文」
1000111010011010	CHARACTER 「字」
1001011111110001	CHARACTER 「列」
1000001001010000	CHARACTER 「1」
00 011	NAME "00"+END OF ELEMENT"text""011"
00 011	NAME "00"+END OF ELEMENT"svg" "011" [4]

Fig. 8

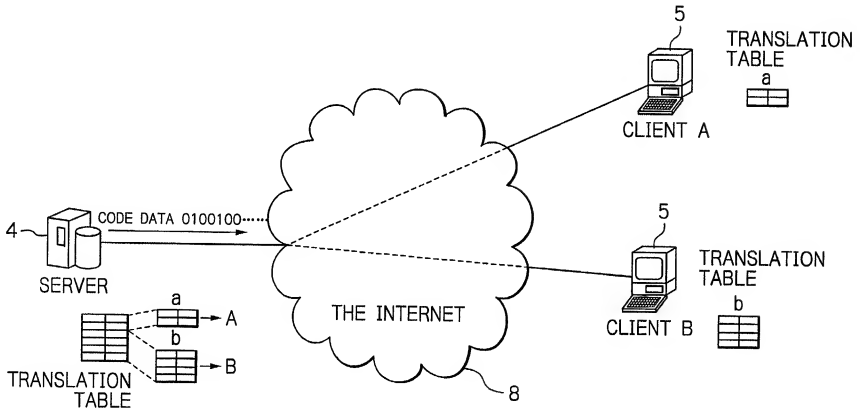


Fig. 9

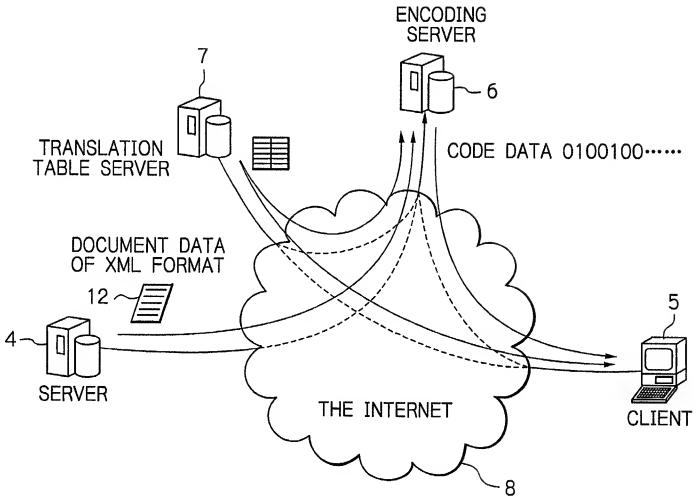
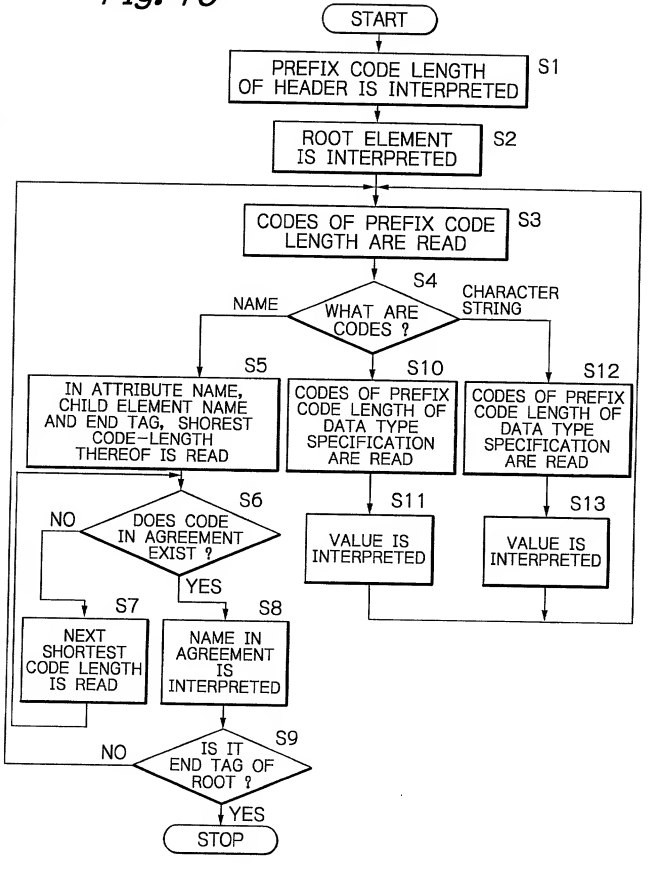

ENCODING SERVER
6
7
TRANSLATION TABLE SERVER
CODE DATA 0100100……
DOCUMENT DATA OF XML FORMAT
12
4
SERVER
THE INTERNET
5
CLIENT
8

Fig. 10


START
PREFIX CODE LENGTH OF HEADER IS INTERPRETED
S1
ROOT ELEMENT IS INTERPRETED
S2
CODES OF PREFIX CODE LENGTH ARE READ
S3
S4
WHAT ARE CODES ?
NAME
CHARACTER STRING
S5
IN ATTRIBUTE NAME, CHILD ELEMENT NAME AND END TAG, SHOREST CODE-LENGTH THEREOF IS READ
S10
CODES OF PREFIX CODE LENGTH OF DATA TYPE SPECIFICATION ARE READ
S12
CODES OF PREFIX CODE LENGTH OF DATA TYPE SPECIFICATION ARE READ
S6
DOES CODE IN AGREEMENT EXIST ?
NO
YES
S11
VALUE IS INTERPRETED
S13
VALUE IS INTERPRETED
S7
NEXT SHORTEST CODE LENGTH IS READ
S8
NAME IN AGREEMENT IS INTERPRETED
S9
IS IT END TAG OF ROOT ?
NO
YES
STOP